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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/576,225

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Jan Schultink

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EXAMINER

PHAM, MINH CHAU THI

ART UNIT

PAPER NUMBER

1797

MAIL DATE

DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/576,225	<b>Applicant(s)</b> SCHULTINK, JAN	
	<b>Examiner</b> MINH-CHAU T. PHAM	<b>Art Unit</b> 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 February 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>9/15/08 &amp; 12/5/07 &amp; 3/12/07</u> .                     | 6) <input type="checkbox"/> Other: _____                          |

***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fesco (3,738,091), in view of Zhang (6,156,086).

Fesco discloses a filter bag (20) for a vacuum cleaner comprising a substantially tubular bag having a closed free on end (28) and at least partially closed area opposite the closed free end area (28) (see Figs. 1-4, col. 3, lines 1-9), and a retaining plate (30) wherein edges of the bag (20) are at least partially interconnected (26) by a weld seam to form the at least partially closed area (see Figs. 1, 5 & 8, col. 3, lines 1-18, lines 9-18, lines 23-36, lines 46-51 and line 60 through col. 4, line 18). Fesco further discloses the seam in the bottom of bag extends over an entire width of the bottom (28, see Fig. 3). Fesco also discloses the filter bag having pre-creases being introduced into the bag material with seam in the bottom (68 in Fig. 6) and up to the closed free end area (see 74, 76, 80 in Fig. 6). Fesco also discloses the retaining plate (30) having a through hole (see Figs. 1 & 5). Fesco further discloses a method of manufacturing a filter bag (20) for a vacuum cleaner comprising the steps of providing a substantially tubular bag having a closed free on end (28) and at least partially closed area opposite the closed free end area (28) (see Figs. 1-4, col. 3, lines 1-9), and a retaining plate (30) wherein edges of the bag (20) are at least partially interconnected (26) by a weld seam to form the at least partially closed area (see Figs. 1, 5 & 8, col. 3, lines 1-18, lines 9-18, lines 23-36, lines 46-51 and line 60 through col. 4, line 18). Fesco further discloses the step

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of connecting plies in the bottom as a result of folding the seam in the bottom of bag extending over an entire width of the bottom (28, see Fig. 3). Fesco also discloses the filter bag having pre-creases being introduced into the bag material with seam in the bottom (68 in Fig. 6) and up to the closed free end area (see 74, 76, 80 in Fig. 6).

Fesco also discloses the retaining plate (30) having a through hole (see Figs. 1 & 5).

Claims 1-19 differ from the disclosure of Fesco in that the filter bag made of a bag material having at least one non-woven composite layer having a weld seam. Zhang discloses a dual media vacuum cleaner bag including at least two sidewalls which sidewalls are joined by thermal seams (see Abstract). Zhang further discloses the bag is made by a composite filter material laminate (21) usable to form a second panel or sidewall of the vacuum cleaner bag. The inner non-woven filter layer (23) is comprised of a non-woven web, and the non-woven filter layer (23) can be a melt blown microfiber non-woven web (col. 2, line 59 through col. 3, line 3, col. 3, lines 11-12). Zhang also discloses the edges of the bag are interconnected by a weld seam via ultrasonic welding or heat bonding (see col. 7, lines 59-67, col. 8, lines 18-22). It would have been obvious to a person having ordinary skill in the art at the time the invention was made to substitute the vacuum bag material of Fesco by the composite bag material as taught by Zhang with a weld seam since it is well known in the art that the vacuum cleaner bag made from the composite laminate material would provide a filter media having high capture efficiency for fine particles with a relatively low pressure drop, hence, a desire for high levels of filtration performance coupled with good mechanical performance at lower costs.

Claims 20-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fesco (3,738,091), in view of Zhang (6,156,086), as applied supra, and further in view of Hall et al (6,009,925).

Fesco discloses a method of manufacturing a filter bag (20) for a vacuum cleaner comprising the steps of providing a substantially tubular bag having a closed free end (28) and at least partially closed area opposite the closed free end area (28) (see Figs. 1-4, col. 3, lines 1-9), and a retaining plate (30) wherein edges of the bag (20) are at least partially interconnected (26) by a weld seam to form the at least partially closed area (see Figs. 1, 5 & 8, col. 3, lines 1-18, lines 9-18, lines 23-36, lines 46-51 and line 60 through col. 4, line 18). Fesco further discloses the step of connecting plies in the bottom as a result of folding the seam in the bottom of bag extending over an entire width of the bottom (28, see Fig. 3). Fesco also discloses the filter bag having pre-creases being introduced into the bag material with seam in the bottom (68 in Fig. 6) and up to the closed free end area (see 74, 76, 80 in Fig. 6). Fesco also discloses the retaining plate (30) having a through hole (see Figs. 1 & 5). Zhang discloses a dual media vacuum cleaner bag including at least two sidewalls which sidewalls are joined by thermal seams (see Abstract). Zhang further discloses the bag is made by a composite filter material laminate (21) usable to form a second panel or sidewall of the vacuum cleaner bag. The inner non-woven filter layer (23) is comprised of a non-woven web, and the non-woven filter layer (23) can be a melt blown microfiber non-woven web (col. 2, line 59 through col. 3, line 3, col. 3, lines 11-12). Zhang also discloses the edges of the bag are interconnected by a weld seam via ultrasonic welding or heat

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bonding (see col. 7, lines 59-67, col. 8, lines 18-22). Claims 20-29 differ from the disclosure of Fesco and Zhang in that the method comprises the step of introducing a die to an open side of the bag so that the bottom of bag is closed. Hall et al disclose a method of joining thin sheets of thermoplastic materials along welded seams formed at their edges or the seam (see col. 1, lines 5-10 and lines 16-17, col. 2, lines 38-60) via a welding die (28) (see col. 5, lines 8-20, col. 10, lines 28-47). It would have been obvious to a person having ordinary skill in the art at the time the invention was made to adopt the step of introducing a die to facilitate welding of the filter bag of Fesco and Zhang since it is well known in the art that the method of joining the two edges along a welded seam provides excellent seam integrity and Zheng clearly indicates sealing seams.

### ***Response to Amendment***

Applicant's arguments filed on February 20, 2009 have been fully considered but they are not persuasive.

Applicant argues that "none of the cited references Fesco and Hall et al discloses a tubular vacuum cleaner bag made from a bag material having at least one non-woven composite layer with a weld seam", as amended. The Examiner still maintains Fesco as the primary reference under the 103(a) rejection of claims 1-19 to show: Fesco discloses a filter bag (20) for a vacuum cleaner comprising a substantially tubular bag having a closed free on end (28) and at least partially closed area opposite the closed free end area (28) (see Figs. 1-4, col. 3, lines 1-9), and a retaining plate (30) wherein

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edges of the bag (20) are at least partially interconnected (26) by a weld seam to form the at least partially closed area (see Figs. 1, 5 & 8, col. 3, lines 1-18, lines 9-18, lines 23-36, lines 46-51 and line 60 through col. 4, line 18), as claimed. Fesco further discloses the seam in the bottom of bag extends over an entire width of the bottom (28, see Fig. 3), as claimed. Fesco also discloses the filter bag having pre-creases being introduced into the bag material with seam in the bottom (68 in Fig. 6) and up to the closed free end area (see 74, 76, 80 in Fig. 6), as claimed. Fesco also discloses the retaining plate (30) having a through hole (see Figs. 1 & 5, as claimed. Fesco further discloses a method of manufacturing a filter bag (20) for a vacuum cleaner comprising the steps of providing a substantially tubular bag having a closed free on end (28) and at least partially closed area opposite the closed free end area (28) (see Figs. 1-4, col. 3, lines 1-9), and a retaining plate (30) wherein edges of the bag (20) are at least partially interconnected (26) by a weld seam to form the at least partially closed area (see Figs. 1, 5 & 8, col. 3, lines 1-18, lines 9-18, lines 23-36, lines 46-51 and line 60 through col. 4, line 18), as claimed. Fesco further discloses the step of connecting plies in the bottom as a result of folding the seam in the bottom of bag extending over an entire width of the bottom (28, see Fig. 3), as claimed. Fesco also discloses the filter bag having pre-creases being introduced into the bag material with seam in the bottom (68 in Fig. 6) and up to the closed free end area (see 74, 76, 80 in Fig. 6), as claimed. Fesco also discloses the retaining plate (30) having a through hole (see Figs. 1 & 5), as claimed. Claims 1-29 differ from the disclosure of Fesco in that the filter bag made of a bag material having at least one non-woven composite layer having a weld seam.

The Examiner newly introduces Zhang (6,156,086) as the secondary reference in combination with the primary Fesco under the 103(a) rejection to show:

Zhang discloses a dual media vacuum cleaner bag including at least two sidewalls which sidewalls are joined by thermal seams (see Abstract). Zhang further discloses the bag is made by a composite filter material laminate (21) usable to form a second panel or sidewall of the vacuum cleaner bag. The inner non-woven filter layer (23) is comprised of a non-woven web, and the non-woven filter layer (23) can be a melt blown microfiber non-woven web (col. 2, line 59 through col. 3, line 3, col. 3, lines 11-12). Zhang also discloses the edges of the bag are interconnected by a weld seam via ultrasonic welding or heat bonding (see col. 7, lines 59-67, col. 8, lines 18-22).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to substitute the vacuum bag material of Fesco by the composite bag material as taught by Zhang with a weld seam since it is well known in the art that the vacuum cleaner bag made from the composite laminate material would provide a filter media having high capture efficiency for fine particles with a relatively low pressure drop, hence, a desire for high levels of filtration performance coupled with good mechanical performance at lower costs.

The Examiner still maintain Hall et al as the tertiary reference in order to reject claims 20-29 under the 103(a) rejection in combination with the primary reference Fesco and secondary reference Zhang to show: Hall et al disclose a method of joining thin sheets of thermoplastic materials along welded seams formed at their edges or the seam (see col. 1, lines 5-10 and lines 16-17, col. 2, lines 38-60) via a welding die (28)



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(see col. 5, lines 8-20, col. 10, lines 28-47). It would have been obvious to a person having ordinary skill in the art at the time the invention was made to adopt the step of introducing a die to facilitate welding of the filter bag of Fesco and Zhang since it is well known in the art that the method of joining the two edges along a welded seam provides excellent seam integrity.

Applicant's arguments with respect to claims 1-29 have been thoroughly considered but are moot in view of the new ground(s) of rejection, as discussed above.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MINH-CHAU T. PHAM whose telephone number is

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(571)272-1163. The examiner can normally be reached on Mon/Tues/Thur/Fri 7:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on (571) 272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/DUANE SMITH/  
Supervisory Patent Examiner, Art  
Unit 1797

/Minh-Chau T. Pham/  
Examiner, Art Unit 1797  
May 5, 2009

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